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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,906	03/23/2001	Joel Gerard Hassell	INTE.02USU1	6323

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EXAMINER	
VU, NGOC K	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/816,906	HASSELL ET AL.	
	Examiner	Art Unit	
	Ngoc K. Vu	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-6,9,10,12,13 and 15-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5,6,12,13 and 15-23* is/are rejected.

7)☒ Claim(s) *3, 4, 9 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Allowable Subject Matter

1. The indicated allowability of claims 5, 6, 12, 13, 15-23 is withdrawn in view of Blackketter of the record and the newly discovered reference to Zhang et al. (US 6,181,711 B1). Rejections based on these references follow.

2. Claims 3, 4, 9 and 10 would be allowable if rewritten to overcome the objection set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim Objections

3. Claim 3 and 9 are objected to because of the following informalities: there are no antecedent basis for the limitations "the file size" in lines 8 and 9, respectively; "the ratio of data stream bandwidth" in lines 11 and 12, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 5, 6, 13, 16-18, 20, 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Blackketter et al. (U.S. 6,415,438 B1).

Regarding **claims 5 and 6**, Blackketter discloses a method for inserting first asynchronous data (first trigger) second asynchronous data (second trigger) into a synchronous stream (television broadcast signal) (see figure 11) comprising: receiving information including a first time value (a time attribute value) when said asynchronous data may be used and a second

value time (time attribute value) when said second asynchronous data may be used (each the trigger has a time attribute value indicating the future time when the trigger is to be executed – see col. 7, lines 46-50 and 60-62; col. 11, lines 11-15 and figure 11); determining a first transfer interval (period of time 1103) for said first asynchronous data (see figure 11); determining a second transfer interval (period of time between 1104 and 1101) for said second asynchronous data (see figure 11); commencing insertion said first asynchronous data into said synchronous data stream at a time prior to said second time value (i.e. future time) by a period of time greater than or equal to the sum of said first transfer interval and said second transfer interval (the insertion of the first trigger into the television broadcast signal at a time prior to the future time by a certain amount of time or period of time greater or equal to the sum of the two transfer intervals – see col. 7, lines 27-31 and 46-62 and figure 11).

Regarding **claims 17 and 21**, Blackketter discloses a system for inserting asynchronous data (triggers) into a synchronous stream (television broadcast stream) comprising: a database/server containing asynchronous data (e.g., remote information store - see col. 7, lines 8-13); an insertion controller (at relay station) containing a processor and program memory (see col. 7, lines 27-31); and a software program operating in said insertion controller operable to determine a first transfer interval (period of time 1103) for said first asynchronous data (see figure 11) and a second transfer interval (period of time between 1104 and 1101) for said second asynchronous data (see figure 11) and to commence insertion said first asynchronous data into said synchronous data stream at a time prior to said second time value (i.e. future time) by a period of time greater than or equal to the sum of said first transfer interval and said second transfer interval (the insertion of the first trigger into the television broadcast signal at a time prior to the future time by a certain amount of time or period of time greater or equal to the

sum of the two transfer intervals – see col. 7, lines 27-31 and 46-62; col. 11, lines 26-29 and figure 11).

Regarding **claim 18**, Blackketter discloses that the synchronous data stream is an audio/video stream (television broadcast stream – see col. 6, lines 19-27; col. 8, lines 25-28; col. 7, lines 4-7).

Regarding **claims 20 and 23**, Blackketter teaches a second software routine (software or instructions) operable to advance in time said insertion of said asynchronous data by a period of time greater than or equal to a data access latency value (by a certain amount of time between 1103 and 1101 - see col. 7-8, lines 63-1; figure 11; col. 11, lines 26-29).

Regarding **claims 13 and 16**, Blackketter discloses a system for inserting asynchronous data (second trigger) into a synchronous stream (television broadcast stream) comprising: a database/server containing asynchronous data (e.g., remote information store - see col. 7, lines 8-13); an insertion controller (at relay station) containing a processor and program memory (see col. 7, lines 27-31); and a software program operating on said insertion controller operable to determine a transfer interval (i.e., time period between 1104 and 1101) for said asynchronous data and to commence insertion of said asynchronous data (second trigger) into said synchronous stream (television broadcast stream) at a time greater than or equal to the duration of said transfer interval prior to a time (future time) when said asynchronous data may be utilized (the trigger is inserted into the television broadcast signal at a certain amount of time prior to the future time by a certain amount of time or period of time greater or equal to the transfer interval. It is further noted that software can be stored on any computer readable medium - see col. 7, lines 27-31; col. 7-8, lines 60-1; col. 6-7, lines 66-7; col. 11, lines 26-29); and a second software routine (software or instructions) operable to advance in time said insertion of said asynchronous data by a period of time greater than or equal to a data access

latency value (by a certain amount of time between 1103 and 1101 - see col. 7-8, lines 63-1; figure 11; col. 11, lines 26-29).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 12, 15, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackketter et al. (U.S. 6,415,438 B1) in view of Zhang et al. (US 6,181,711 B1).

Regarding **claims 12 and 15**, Blackketter discloses a system for inserting asynchronous data (trigger) into a synchronous stream (television broadcast stream) comprising: a database/server containing asynchronous data (e.g., remote information store - see col. 7, lines 8-13); an insertion controller (at relay station) containing a processor and program memory (see col. 7, lines 27-31); and a software program operating on said insertion controller operable to determine a transfer interval (i.e., time period 1103) for said asynchronous data and to commence insertion of said asynchronous data (trigger) into said synchronous stream (television broadcast stream) at a time greater than or equal to the duration of said transfer interval prior to a time (future time) when said asynchronous data may be utilized (the trigger is inserted into the television broadcast signal at a certain amount of time prior to the future time by a certain amount of time or period of time greater or equal to the transfer interval. It is further noted that software can be stored on any computer readable medium - see col. 7, lines 27-31; col. 7-8, lines 60-1; col. 6-7, lines 66-7; col. 11, lines 26-29).

Blackketter does not teach a software routine operable to determine a transfer rate based on total data stream bandwidth utilized by non-metadata transfers. However, Zhang teaches that a multiplexer determines bit rate profile for a first bit stream so that the bit rate is less than available channel bandwidth to allow a second data stream to take up any remaining bandwidth. In other words, the multiplex determines a transfer rate based on channel bandwidth and bandwidth used by the first bit stream transfers (see col. 14, lines 15-32; col. 12, lines 3-7). It should be understood that the system includes software routine or instruction operable to enable the multiplexer to determine the transfer rate as addressed above. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Blackketter by including a software routine operable to determine a transfer rate based on total data stream bandwidth utilized by the first bit stream transfers as taught by Zhang in order to effectively optimize channel capacity.

Regarding **claims 19 and 22**, Blackketter does not teach a software routine operable to determine a first transfer rate and a second transfer rate based on total data stream bandwidth utilized by non-metadata transfers. However, Zhang teaches that a multiplexer determines bit rate profile for a video bit stream so that the bit rate is less than available channel bandwidth to allow a second data stream to take up any remaining bandwidth. Zhang further teaches that a bit stream 1 may have a priority, and therefore be controlled to have a minimum amount of rate conversion, while the other bit streams 2 and 3, may have lower priorities, and therefore be subject to greater bit rate conversion. The multiplexer may also use time of transmission to determine the priorities for channel usage, and use the control lines to apply various bit conversions rates to maintain maximum use of the channel capacity (see col. 14, lines 15-32; col. 12, lines 3-7; col. 15, lines 15-25). It should be understood that the system includes software routine or instruction operable to enable the multiplexer to determine the transfer rates

as addressed above. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Blackketter by including a software routine operable to determine transfer rates based on total data stream bandwidth utilized by the video bit stream transfers as taught by Zhang in order to maintain maximum use of the channel capacity.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ngoc K. Vu
Primary Examiner
Art Unit 2611

September 13, 2005